

Serial No. 10/003,344

Docket No. LT-0008

Amendment dated August 24, 2005

Reply to Office Action of February 25, 2005

**Amendments to the Specification:**

**Please replace paragraph beginning at page 1, line 5, with the following amended paragraph:**

The present invention relates to a method of providing a file transfer service through a mobile communication network, and more particularly, to a method of determining whether to transfer a data file including audio, moving-picture, or text contents, requested to be transferred through a mobile station, based on a specified transfer condition and/or file size, and transferring a data file to a destination mobile terminal connected through a mobile communication network.

**Please replace paragraph beginning at page 2, line 3, with the following amended paragraph:**

Lately, a next-generation mobile communication network is being introduced according to a remarkable development of mobile communication technology. The next-generation mobile communication network such as IMT-2000 (International Mobile Telecommunication for the 2000s) or FPLMTS (Future Public Land Mobile Telecommunication System) is expected to be commercialized sooner or later. The next-generation mobile communication network adopts a packet switched method for sending/receiving audio, moving-picture, or data file at

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high speed, and it also uses a high frequency band, e.g., 1,885MHz~2,110MHz or 2,110MHz~2,200MHz to ensure higher data transmission rate.

**Please replace paragraph beginning at page 2, line 14, with the following amended paragraph:**

Therefore, the next-generation mobile communication network can provide a high-quality communication service, namely, high-speed data transmission and highly-reliable data delivery for video or text data file as well as conventional voice conversation, furthermore, it can provide various supplementary services.

**Please replace paragraph beginning at page 2, line 19, with the following amended paragraph:**

However, a mobile station has too small a storage capacity to store a large-sized data file when it receives or sends, and a service charge of wireless data communication is relatively higher than that of wired communication as well, so that a service use cost would be increased greatly if a lot of data are transferred through a mobile communication network.

**Please replace paragraph beginning at page 2, line 26, and bridges page 3, with the following amended paragraph:**

It is an object to provide a method of transferring a data file through a mobile communication network, which transfers a data file to a terminal other than a target mobile station based on a file size and/or file type, and guarantees data file transfer to be conducted out of a time zone of high service charge where the time zone is set by a user.

**Please replace paragraph beginning at page 5, line 6, with the following amended paragraph:**

Fig. 2 shows an example of the transfer conditioning information to be stored in the file handling server 20 according to the present invention. The transfer conditioning information includes a code number of an audio, video, or text file specified to be transferred by a subscriber; terminal identification number (TIN), e.g., ESN (Electronic Serial Number) or telephone number of an originating MS initiating a file transfer service; TIN of a destined MS to receive a data file; file transfer blocking time zone set by a subscriber; and file type and size. The file transfer blocking time zone is preferably set by a subscriber to a time zone when traffic is thought to be much congested or a charge per unit time is relatively high.

**Please replace paragraph beginning at page 6, line 4, with the following amended paragraph:**

The file handling server 20 will charge differently for each data file transfer service according to the set file transfer blocking time zone, therefore, a subscriber can reduce a data transfer service using cost by setting the file transfer blocking time zone to a heavy traffic time zone which usually has high-rate charging scheme.

**Please replace paragraph beginning at page 6, line 16, with the following amended paragraph:**

Namely, the file handling server 20 searches the stored file transfer blocking time zones set by many subscribers for one time zone which is closest to a current time. If one is selected, the file handling server 20 reads a TIN stored in connection with the selected time zone, and tries to make connection to the MS 11 of the read TIN addresses. To make a connection, a calling signal is carried by a paging channel with a TIN of the called MS 11 and information on a file to transfer as shown in Fig. 3 where the file information includes file type and size.

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**Please replace paragraph beginning at page 6, line 25, and bridges page 7, with the following amended paragraph:**

Accordingly, the called MS 11 identifies its own TIN carried in the paging channel, and then it extracts the file information in the paging channel and displays 'file transfer ready' on its LCD as shown in Fig. 4 together with file type (or attribute) and size contained in the extracted file information. A person carrying the called MS 11, therefore, knows with ease that a data file is to be downloaded to him or her now.

**Please replace paragraph beginning at page 7, line 5, with the following amended paragraph:**

The person having acknowledged 'file transfer ready' will select 'start file transfer' or 'suspend file transfer' based on the file type and/or size displayed on the LCD of the MS 11. Namely, if the file to be downloaded is a small-sized audio or text ~~one~~file, the called person is likely to select 'start file transfer' to request immediate file download, however if the file is large-sized moving-picture one, he or she will select 'suspend file transfer' to put the file download on hold.

**Please replace paragraph beginning at page 7, line 13, with the following amended paragraph:**

In the condition that file transfer is suspended, if a large-storage peripheral device such as a personal computer is connected to the called MS 11 as shown in Fig. 5, the called MS 11 sends its own TIN, a terminal status of the connected device, and a download accepting signal through an accessing channel of wireless signals after receiving the terminal status. The terminal status contains information on a spare storage capacity of the connected device and it is entered by the called person or is provided automatically from the peripheral device as soon as the called MS 11 is connected to the device.

**Please replace paragraph beginning at page 7, line 23, and bridges page 8, with the following amended paragraph:**

Then, the file handling server 20 receives all the information sent from the called MS 11 through the mobile communication network 100, identifies, based on a TIN contained in the received information, which file the received information is about, and checks the type and size of the identified file to know whether the spare storage capacity of the connected peripheral device is sufficient for the file to transfer. If the spare storage capacity is not enough to store the file, the file handling server 20 sends a message notifying of possible download fail, otherwise, it immediately starts download of the file and, at the same time, sends a message indicative of

'download being processed' which will be displayed on an LCD of the called MS 11 like as in Fig. 7.

**Please replace paragraph beginning at page 9, line 1, with the following amended paragraph:**

If a call connection to the target MS 11 is failed due to a power-off of the MS 11 or pre-occupancy of all links of a cell where the MS 11 is located, the file handling server 20 searches for next file transfer blocking time zone which is secondly closest to the current time, and reads a TIN stored in connection with the found time zone, and tries to make connection to a certain MS the read TIN addresses. If connection is made to the MS, the above-explained file transfer service is conducted.

**Please replace paragraph beginning at page 9, line 9, with the following amended paragraph:**

In the meantime, when a file transfer is requested to the file handling server 20 from the originating MS 10, the file handling server 20 may send a subscriber authentication requesting signal to the authorizing server 22 together with the TIN of the MS 10. Then, the authorizing server 22 acknowledging the requesting signal from the file handling server 20 sends to the originating MS 10 a message requesting a unique subscriber's number and password which is

displayed on an LCD of the MS 10. After that, if subscriber's number and password are received the authorizing server 22 determines based on validity of them whether or not a person carrying the MS 10 is entitled to use file transfer service.

**Please replace paragraph beginning at page 10, line 9, with the following amended paragraph:**

The method of providing a file transfer service through a mobile communication network according to the present invention, enables a subscriber to transfer a data file to a mobile terminal located anywhere through a mobile communication network avoiding a highly-charging time zone, and also prevents in advance a file transfer fail which might be caused from insufficient storage capacity of a receiving mobile terminal for a large-sized data file to transfer.